Lassen Volcanic

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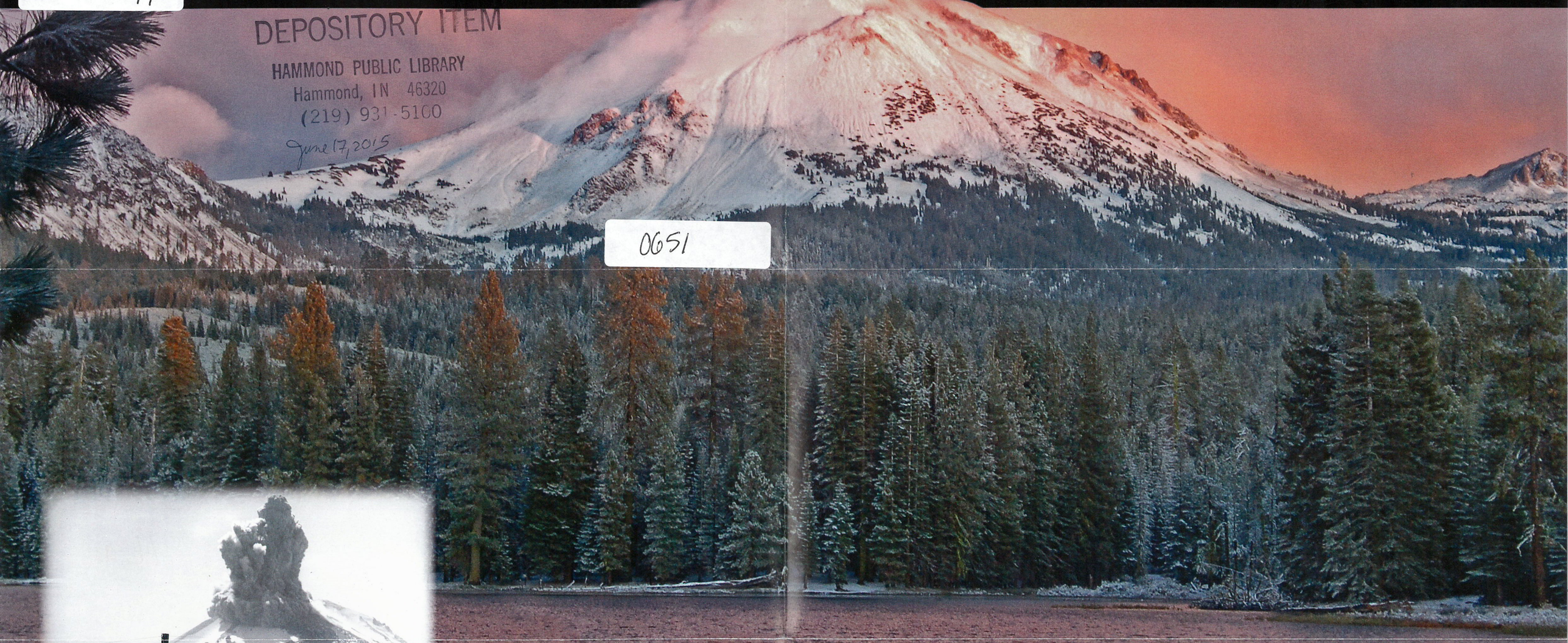
Lassen Volcanic National Park
California

National Park Service
U.S. Department of the Interior



Lassen Peak at sunset
© MIKE DRESEN

Eruption of Lassen Peak, June 14, 1914.

At Lassen snow arrives early and stays late. Jagged features are made smooth by deep blankets of snow, yet far below the surface, a fire still burns. Eroded volcanic remnants, U-shaped valleys, and roaring steam vents illustrate Earth's endless cycle of creation and destruction. Woven into this dramatic landscape are timeless stories of survival, renewal, and discovery.

Here, summer is a time of awakening—lakes thaw, wildflowers bloom in emerald meadows, and the bustle of life returns as forests shed their winter mantle. Once a summer home and hunting ground for the Atsugwei, Yana, Yahi, and Maidu, *Kohm Yah-mah-nee* or snow mountain (Lassen Peak) is still sacred land.

Explore this volcanic landscape—take a hike; listen to gurgling mudpots and hissing steam vents; smell the sulfur springs; watch the Milky Way shimmer across the night sky; or perhaps throw a snowball in summer. Create your own story in this rugged wilderness.

Nature is ever at work building and pulling down, creating and destroying, keeping everything whirling and flowing . . . out of one beautiful form into another.

John Muir, 1899

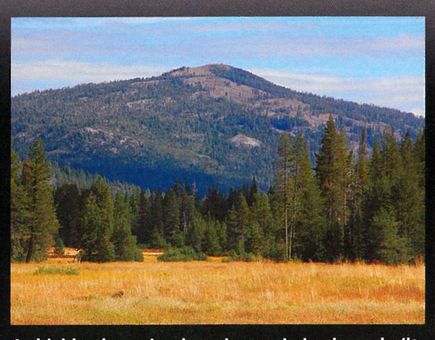
Powerful Forces

Lassen Volcanic National Park illustrates Earth's powerful forces. Every rock originated from volcanoes, and all four types—shield, composite, cinder cone, and plug dome—can be found here.

Lassen Peak is one of the largest plug dome volcanoes in the world. Its last eruptions were between 1914 and 1921, with the largest explosion on May 22, 1915. The eruptions, photographed by local businessman Benjamin F. Loomis, paved the way for the creation of Lassen Volcanic National Park on August 9, 1916.

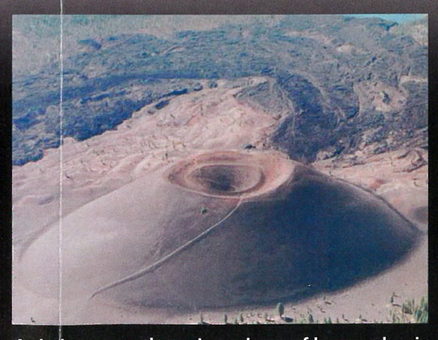
Scientists continue to monitor the landscape. No one can say when or where the next eruption will occur, only that it will.

MOUNT HARKNESS / SHIELD



A shield volcano is a broad, rounded volcano built up by successive outpourings of very fluid lava that can spread over great distances. Mount Harkness began forming approximately 600,000 years ago.

CINDER CONE / CINDER CONE

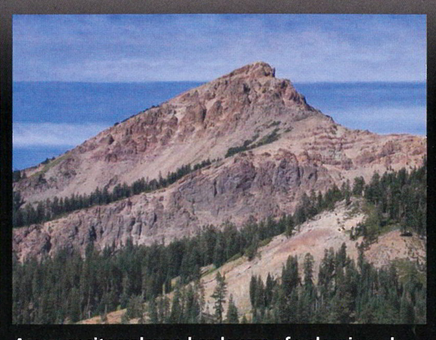


A cinder cone volcano is made up of loose volcanic rock, cinders, and ash that accumulate around a single vent. Cinder Cone volcano in the park formed during eruptions around 1650.

LASSEN PEAK / PLUG DOME

A plug dome volcano forms when lava is too thick to flow great distances. A steam blast shattered Lassen's plug, creating an avalanche of melted snow and rock down the east side.

BROKEOFF MOUNTAIN / COMPOSITE



A composite volcano has layers of volcanic rock, lava, cinders, and ash that erupted from a central vent or group of vents. Brokeoff Mountain is a remnant of the park's only composite volcano, the much larger Brokeoff Volcano.

A Living Landscape

Boiling mudpots, steaming ground, roaring fumaroles, sulfurous gases...

Steaming fumarole at Sulphur Works.

Rain and snow feed the hydrothermal (hot water) system that lies deep underground. Heated by molten rock, this water rises to the surface creating the remarkable features found in the park. These features are evidence of active volcanism and indicate the potential for future eruptions.

Bumpass Hell boardwalk and basin.

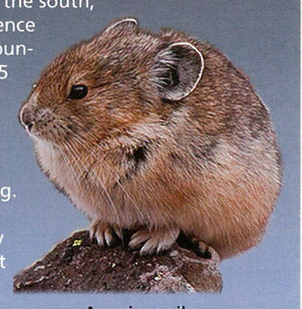
Boiling cauldron at Devils Kitchen in Warner Valley.

Changing Ecosystems

Lassen lies at the crossroads of three biological provinces: the Cascade Range to the north, the Sierra Nevada mountains to the south, and the Great Basin desert to the east. This convergence contributes to the diversity of ecosystems and the abundance of flora and fauna found in the park. Over 745 distinct species have been identified.

One particular species, the American pika, is heat intolerant. Studies show there may be a loss of pika habitat at lower elevations due to increased warming.

Scientists are studying ecosystem shifts influenced by climate change. Concerns include species and habitat management, changes in precipitation, snow pack, and wildfires.



American pika
© RUDOLF FRIEDERICH

Wilderness . . . is a necessity of the human spirit.

Edward Abbey

Hikers hit the trail.

Wilderness is the heartbeat of Lassen. It can be heard in the rush of spring-fed streams, the hoot of a great horned owl, the gurgling of mudpots, and in the silence of winter snow.

Life in this rugged landscape is intrinsically untamable and dependent on the balance of natural systems, which, in turn, affect those living beyond the wilderness. Melting snow replenishes four watersheds, providing clean water downstream, while forested mountain slopes help clean the air. Lassen's fragile ecosystems and their diversity of life provide opportunities for education and scientific research, while the night sky, nearly unaffected by light pollution, glows with constellations, meteor showers, and the Milky Way.

The majority of Lassen is managed as designated wilderness, a retreat from civilization. It is a place to embrace solitude, reconnect with nature, and find healing, significance, and meaning.

The Milky Way lights up the night sky over Chaos Crags.
ALISON TAGGART BARONE

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Ranger-led snowshoe programs are offered in the winter season.

Exploring Lassen Volcanic

Planning Your Visit

Information The park newspaper and website list area accommodations, services, seasonal activities, and wheelchair-accessible facilities. Get your free newspaper at park entrance stations or on the park website. Maps and publications can be purchased at Loomis Museum (summer only) and Kohm Yah-mah-nee Visitor Center. An entrance fee is charged at park entrances.

Accessibility We strive to make our facilities, services, and programs accessible to all. For details go to an information site, ask a ranger, call, or check our website.

Emergencies call 911

Thermal Warnings: Stay on established trails and boardwalks. In hydrothermal areas ground can look solid but it may actually be a thin crust hiding pools of acidic boiling water. Traveling off-trail in these areas is illegal and may result in severe injury. Watch children closely.

For firearms regulations check the park website.

Pets Leashed pets are welcome on paved surfaces in parking areas and campgrounds only. They are not permitted in buildings or on trails.

Phones Cell phone coverage here is limited. Pay phones are located at the Manzanita Lake Camper Store and Loomis Museum. An emergency phone is in the Kohm Yah-mah-nee Visitor Center.

Manzanita Lake

© MICHAEL RUBIN

Kings Creek Falls

Things to Do

Auto Tour The highway through the park offers access to trails, lakes, and volcanic and hydrothermal features. The road guide is sold at the Loomis Museum and Kohm Yah-mah-nee Visitor Center. Speed limit is 35 mph or as posted. Do not stop on roadways; use the overlooks to view wildlife and scenery.

Campgrounds Campsites are available as both first-come, first-served or by reservation; reservations are required for group sites. See the park newspaper for more information. Protect natural resources: camp in designated campgrounds only • Park in designated areas only • Bears are present; store food properly • Do not feed wild animals • Build fires only in campground fire grates; do not leave any fire unattended.

Hiking The 150 miles of park trails include 17 miles of Pacific Crest National Scenic Trail. • Acclimate to high elevations gradually. Wear sturdy footwear. • Avoid exposed areas in lightning storms. • Never hike alone. • **Pets are not allowed on trails or boardwalks.** • Stay on trails; take no shortcuts. • Bicycles, motor vehicles, and all wheeled conveyances are prohibited on trails. Ask a ranger about wheelchair use on trails. • Rock climbing is discouraged as volcanic rock is unstable. Consult a ranger before climbing.

Backpacking A backcountry permit is required for any overnight backcountry stay. Permits are available at visitor and ranger stations. Contact the park about closed areas. • Wood fires and stoves are prohibited. • Pack out all trash. • Treat all backcountry water before drinking.

Butte Lake

Be avalanche aware: always get weather and avalanche information before you enter the backcountry.

Stock Use Pack and saddle stock *may stay overnight only in the designated horse camps* at Summit, Juniper, and Butte lakes—reservations required. Permits required for day use of stock.

Fishing and Boating Anglers need a California fishing license and must know park regulations and limits. Only non-power watercraft may be used on park lakes; engines of any type are not permitted. Boating is prohibited on Reflection, Emerald, Helen, and Boiling Springs lakes. Kayak rentals are offered at Manzanita Lake Camper Store in summer.

More Information
Lassen Volcanic National Park
PO Box 100
Mineral, CA 96063-0100
530-595-6100
www.nps.gov/lavo

Lassen Volcanic is one of over 400 parks in the National Park System. Visit www.nps.gov to learn more.

Lassen Volcanic Wilderness

Congress has protected nearly 90 percent of Lassen Volcanic National Park as wilderness under the 1964 Wilderness Act. Lassen Volcanic Wilderness was designated in 1972, becoming one of the earliest wilderness areas in the National Wilderness Preservation System. Preserving wilderness shows restraint and humility, and benefits generations to come. Wilderness designation protects forever the land's wilderness character, natural conditions, opportunities for solitude, and scientific, educational, and historical values.

National Park Foundation.
Join the park community.
www.nationalparks.org

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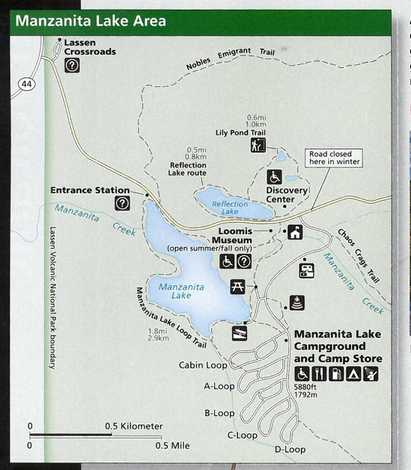

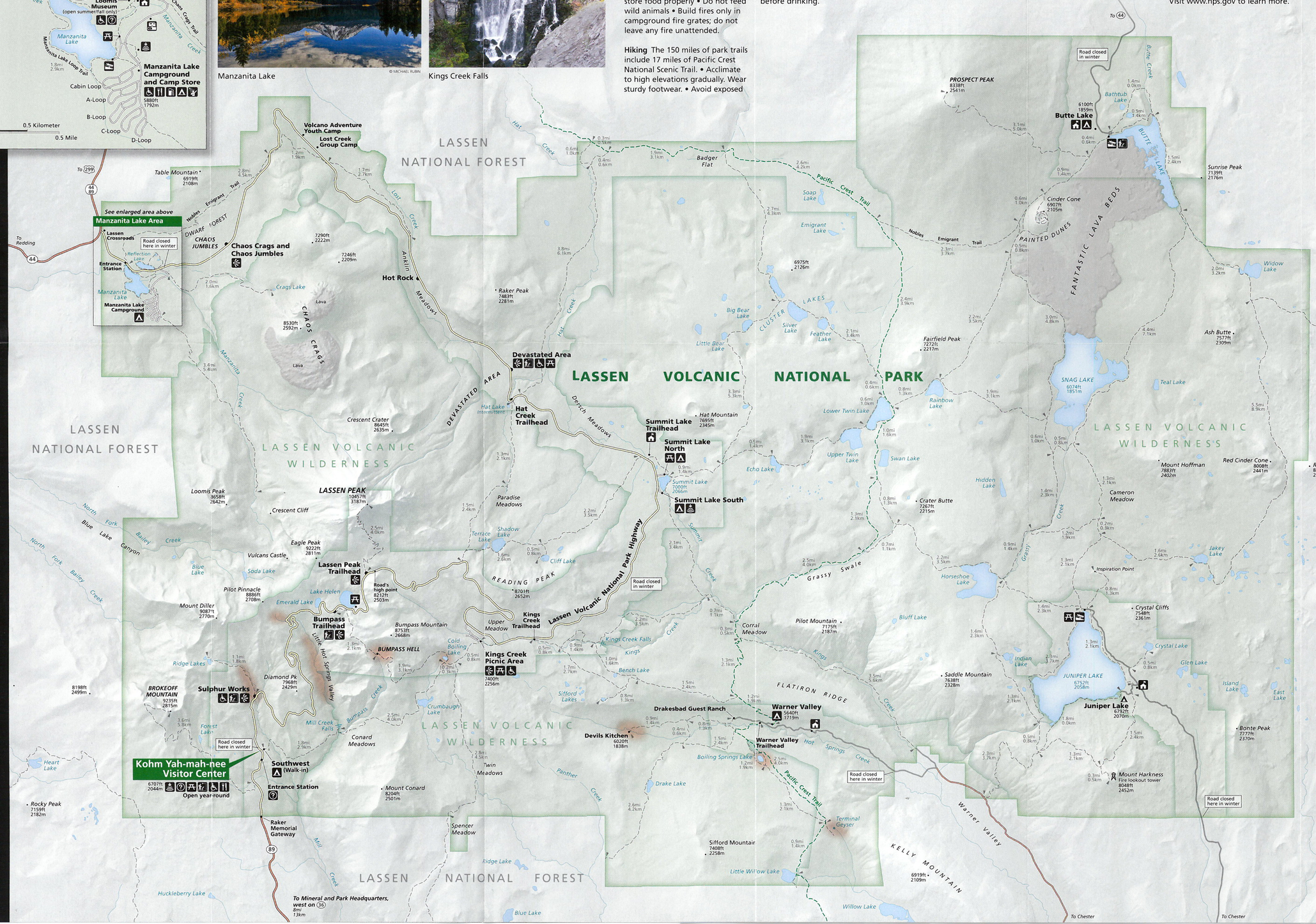

Pullout
Hydrothermal area
Pacific Crest Trail
Hiking trail
Distance indicator
Unpaved road

Hydrothermal area safety
Traveling off-trail in hydrothermal areas is extremely dangerous. Stay on estabished trails and boardwalks.

Information site
Ranger station
Picnic area
Interpretive trail
Wheelchair-accessible
Sanitary disposal station
Showers
Food service
Gasoline
Campground
Primitive campsite
Boat launch
Amphitheater
Scenic viewpoint